VOLUME CONTENTS

Volume 5 Numbers 1–4

CONTENTS

Special Volume: Proceedings of the Second Conference on Petroleum Geochemistry and Exploration in the Afro–Asian Region

FAN PU	1	Opening speech
Analytical Methods		
RUAN TIANJIAN and CHENG JIANPING	5	Hydrogen stripping of absorbed hydrocarbons in soil sample—a new method in geochemical exploration for oil and gas
N. SINGH, A. K. BALYAN and D. R. CHAUDHARY	9	Geochemical evaluation of crude oils using nuclear magnetic resonance spectroscopy
XU LINA and WANG PEIRONG	11	Application of MS/MS technique to the structure study of petroporphyrins
QI RUI ZHANG	15	Organic geochemical dating—a preliminary study
H. H. GANZ and W. KALKREUTH	19	IR classification of kerogen type, thermal maturation, hydrocarbon potential and lithological characteristics
Kerogen characterization		
R. P. PHILP and A. K. GARG	31	Characterization of some sedimentary sequences from Cambay Basin, India, by pyrolysis–GC
FEI FUAN	39	Geochemical characteristics of Type IV kerogen from Lower Paleozoic source rocks in Lower Yangtze area
S. Y. LIU and G. H. TAYLOR	43	TEM observations on Type III kerogen, with special reference to coal as a source rock
R. ISHIWATARI, S. MORINAGA, S. YAMAMOTO and T. MACHIHARA	53	Characteristics of kerogens from Recent marine and lacustrine sediments: GC/MS analysis of alkaline permanganate oxidation products
Kinetics of petroleum formation		
QIAN JIALIN, WU ZHAOLIANG, WANG JIANQIU, HUANG XINGHAN and WU LIYAN	63	A study of different mathematical models for evaluation of hydrocarbon generation from source rock kerogen thermal degradation
QIAN JISHENG, CHEN YIPING, ZHOU ZHONGYI and HAN LING	67	An analysis of kinetic data on TGA thermo-degradation of different types of unmatured kerogen
ZHANG YOUCHENG, YAO MENG and HAO SHISHENG	75	An application of the optimization method—a new calculation method of hydrocarbon generation kinetic parameters
KUANGZONG QIN	81	Kerogen carbon aromaticity—its determination and significance

Migration

A. H. M. SHAMSUDDIN and S. I. KHAN — 89 Geochemical criteria of migration of natural gases in the Miocene sediments of the Bengal Foredeep, Bangladesh

ZHANG QUANXING and ZHANG QIMING — 101 Evidence of primary migration of condensate by molecular solution in aqueous phase in Yacheng Field, offshore South China

WU SHIQING, ZHANG SHUFANG, YUE SHUZHEN and WU JINYUN — 107 Migratory hydrocarbons in the Eogene rocks of Changhe Sag, Zhejiang Province, China

Biomarkers

FAN PU, QIAN YAORONG and ZHANG BAISHENG — 113 Characteristics of biomarkers in the Recent sediment from Qinghai Lake, northwest China

FAN PU, MENG QIANXIANG and YU XINKE — 129 Biomarkers of Upper Sinian cyanobacterial dolostones in southwest China

JIANG ZHUSHENG and R. P. PHILP — 155 Novel tricyclic alkanes in crude oils from Xinjiang Province, China

FU JIAMO, SHENG GUOYING, PENG PINGAN, XU JIAYOU and HUANG YONGSONG — 167 The major types of terrestrial source rocks and the peculiarities of biological marker composition of terrestrial oils in China

SHI JIYANG, XIANG MINGJU, HONG ZHIQING, WANG BENSHAN, ZHANG LIJIE and XIN MAOAN — 175 Biomarker distribution of source rocks in the Dongpu Depression and its relation to the generation of immature oil

LUO BINJIE, WANG YOUXIAO, YANG XINGHUA, LI XINYU, ZHENG GUODONG and WU ZHIYONG — 181 Geochemical features and sedimentary environment of terrestrial crude oils

CHENG KEMING, JIN WEIMING, HE ZHONGHUA and CHEN JIANPING — 189 Application of sesquiterpanes to the study of oil–gas source—the gas–rock correlation in the Qiongdongnan Basin

SHENG GUOYING, FU JIAMO, PENG PINGAN, LI BIQIONG, XU SHIPING and JIANG JIGANG — 197 Characteristic biological markers in organosulfur-rich non-marine immature source rocks and their geochemical significance

F. M. SWAIN — 205 Application of sedimentary carbohydrate residues in a study of organic facies and natural gas occurrences

FAN SHANFA, FU JIAMO, G. EGLINTON and L. DYAS — 215 Computerized gas chromatographic–mass spectrometric analysis of petroporphyrins of Tertiary oil and shale in Liaohe basin

XIANG MINGJU, SHI JIYANG, HONG ZHIQING and WEN QIZHONG — 219 Evolution of biomarkers in early diagenesis: organic geochemistry of Quaternary sediment in the Chiawobao basin

WANG AN QIAO and ZHENG BAO MING — 225 Characteristics of biomarkers from light oils and their source rocks in the northern continental shelf of the South China Sea

R. J. COLLIER and J. H. JOHNSTON — 231 The identification of possible hydrocarbon source rocks, using biomarker geochemistry, in the Taranaki basin, New Zealand

HU GUIXIN — 241 Geochemical characterization of steranes and terpanes in certain oils from terrestrial facies within the South China Sea

LI MAOWEN and R. B. JOHNS — 249 Some diagenetic implications of the presence of hopanoid and other biomarkers in a Funan coaly shale

LIN RENZI and WANG PEIRONG — 257 PAH in fossil fuels and their geochemical significance

HU LIANQI and LI YULIN — 263 Studies on the synthesis of biomarkers (VI)—synthesis of 5α,14α,17α-20S-cholestane and 5β,14α,17α-20S-cholestane

HE YUEYING and SHAO HONGSHUN — 269 The distribution of aromatic hydrocarbons in source rocks from a well in the Qaidam Basin

Organic geochemistry of Recent sediments

M. SAIN, K. N. MISRA and K. P. SINGH — 275 Geochemical studies on Recent marine sediments from the Arabian Sea in relation to depositional environments of organic matter

Coal geochemistry

J. H. JOHNSTON, R. J. COLLIER and A. I. MAIDMENT — 283 Coals as source rocks for hydrocarbon generation in the Taranaki Basin, New Zealand: a geochemical biomarker study

F. MPANJU, S. NTOMOLA and M. KAGYA — 291 The source rock potential of the Karroo coals of the south western Rift Basin of Tanzania

CHEN DEYU, LIU DEHAN and YE CHAOHUI — 305 Preliminary study of ^{13}C high resolution solid NMR spectra of hydrogen-rich coals and its relation to hydrocarbon generation

Geochemical prospecting

LIU CHONGXI and WU XUEMING — 313 Near surface hydrogeochemical exploration for oil and gas in China

YANG WENKUAN — 317 Data processing of surface chemical exploration

CHEN LI — 321 The function $f(x_i, \Delta G_f^0)$ of soil absorbed hydrocarbons and its application in geochemical exploration of oil and gas near the Earth's surface

Stable isotopes

XU YONGCHANG, SHEN PING, SUN MINGLIANG and XU SHENG — 327 Non-hydrocarbon and noble gas geochemistry

M. SCHIDLOWSKI — 333 Organic carbon isotope record: index line of autotrophic carbon fixation over 3.8 Gyr of Earth history

V. BANERJIE, A. K. MITTAL, A. K. GUPTA, A. K. BALYAN and D. R. CHAUDHARY — 339 On the origin of hydrocarbons reservoired in Bombay High: stable isotopic studies of natural gases

QIAN FUWEI — 345 Study on the geochemical thermodynamic nature of CO_2–CH_4 and CO_2 rich gas

Geochemical study of sedimentary basins

R. P. PHILP, P. FAN, C. A. LEWIS, J. LI, H. ZHU and H. WANG — 351 Geochemical characteristics of oils from the Chaidamu, Shanganning and Jianghan Basins, China

HUANG DIFAN, LI JINCHAO, ZHANG DAJIANG, HUANG XIAOMING and ZHOU ZHUHONG — 359 Maturation sequence of Tertiary crude oils in the Qaidam Basin and its significance in petroleum resource assessment

K. CHANDRA, P. C. PHILIP, P. SRIDHARAN, V. S. CHOPRA, B. RAO and P. K. SAHA — 367 Petroleum source-rock potentials of the Cretaceous transgressive–regressive sedimentary sequences of the Cauvery Basin

WANG TIEGUAN — 373 Geochemical characteristics of Longtangou bituminous sandstone in Lingyuan, eastern Yanshan region, north China—approach to a Precambrian reservoir bitumen

M. ISMAIL and A. H. M. SHAMSUDDIN — 381 Organic matter maturity and its relation to time, temperature and depth in the Bengal Foredeep, Bangladesh

M. AHMED, S. I. KHAN and M. A. SATTAR — 391 Geochemical characterization of oils and condensates in the Bengal Foredeep, Bangladesh

YANG BIN — 401 Geochemical characteristics of oil from well Shacan 2 in the Tarim Basin

M. KAGYA, S. J. NTOMOLA and F. MPANJU — 407 The source rock of the Nyasa Rift Basin oil shows of Tanzania

O. B. HARPUT and O. ERTÜRK — 421 The organic geochemical evaluation of the 9th and 10th Districts of SE Anatolia

C. SOYLU — 429 Oil source rocks in the Adiyaman area, southeast Turkey

JIA RONGFEN, CHEN NANSHENG, HUANG CAIYU, LIU DEHAN and SHEN JIAGUI — 435 Organic geochemical characteristics of Triassic and Jurassic carbonate rocks in the Nanamud–Golmud (N–G) Section of the Qingzang Plateau, China

HUI RONGYAO, MENG QIANXIANG, ZHANG JIZHONG and DING ANNA — 443 Geochemical characteristics of immature hydrocarbons of the Anjihai Depression in the Junggar Basin

Others

J. D. COLLEN and R. H. NEWMAN — 449 Porosity development in deep sandstones, Taranaki Basin, New Zealand

H. MCQUILLAN — 453 The role of basement tectonics in the control of sedimentary facies, structural patterns and salt plug emplacements in the Zagros fold belt of southwest Iran

HE ZHIGAO — 465 A model of oil-generation in a waterlogged and closed system

Title Section, Volume Contents and Author Index to Volume 5, 1991 — i

AUTHOR INDEX

Ahmed, M. 391

Balyan, A.K. 9, 339
Banerjie, V. 339

Chandra, K. 367
Chaudhary, D.R. 9, 339
Chen Deyu 305
Chen Jianping 189
Chen Li 321
Chen Nansheng 435
Chen Yiping 67
Cheng Jianping 5
Cheng Keming 189
Chopra, V.S. 367
Collen, J.D. 449
Collier, R.J. 231, 283

Ding Anna 443
Dyas, L. 215

Eglinton, G. 215
Ertürk, O. 421

Fan, P. 351
Fan Pu 1, 113, 129
Fan Shanfa 215
Fei Fuan 39
Fu Jiamo 167, 197, 215

Ganz, H.H. 19
Garg, A.K. 31
Gupta, A.K. 339

Han Ling 67
Hao Shisheng 75
Harput, O.B. 421
He Yueying 269
He Zhigao 465
He Zhonghua 189
Hong Zhiqing 175, 219
Hu Guixin 241
Hu Lianqi 263
Huang Caiyu 435
Huang Difan 359
Huang Xiaoming 359
Huang Xinghan 63
Huang Yongsong 167
Hui Rongyao 443

Ishiwatari, R. 53
Ismail, M. 381

Jia Rongfen 435
Jiang Jigang 197
Jiang Zhusheng 155
Jin Weiming 189
Johns, R.B. 249
Johnston, J.H. 231, 283

Kagya, M. 291, 407
Kalkreuth, W. 19
Khan, S.I. 89, 391
Kuangzong Qin 81

Lewis, C.A. 351
Li Biqiong 197
Li Jinchao 359
Li Maowen 249
Li Xinyu 181
Li Yulin 263
Li, J. 351
Lin Renzi 257
Liu Chongxi 313
Liu Dehan 305, 435
Liu, S.Y. 43
Luo Binjie 181

Machihara, T. 53
Maidment, A.I. 283
McQuillan, H. 453
Meng Qianxiang 129, 443
Misra, K.N. 275
Mittal, A.K. 339
Morinaga, S. 53
Mpanju, F. 291, 407

Newman, R.H. 449
Ntomola, S.J. 291, 407

Peng Pingan 167, 197
Philip, P.C. 367
Philp, R.P. 31, 155, 351

Qi Rui Zhang 15
Qian Fuwei 345
Qian Jialin 63
Qian Jisheng 67
Qian Yaorong 113

Rao, B. 367
Ruan Tianjian 5

Saha, P.K. 367
Sain, M. 275
Sattar, M.A. 391
Schidlowski, M. 333
Shamsuddin, A.H.M. 89, 381
Shao Hongshun 263
Shen Jiagui 435

Shen Ping 327
Sheng Guoying 167, 197
Shi Jiyang 175, 219
Singh, K.P. 275
Singh, N. 9
Soylu, C. 429
Sridharan, P. 367
Sun Mingliang 327
Swain, F.M. 205

Taylor, G.H. 43

Wang An Qiao 225
Wang Benshan 175
Wang Jianqiu 63
Wang Peirong 11, 257
Wang Tieguan 373
Wang Youxiao 181
Wang, H. 351
Wen Qizhong 219
Wu Jinyun 107
Wu Liyan 63
Wu Shiqing 107
Wu Xueming 313
Wu Zhaoliang 63
Wu Zhiyong 181

Xiang Mingju 175, 219
Xin Maoan 175
Xu Jiayou 167
Xu Lina 11
Xu Sheng 327
Xu Shiping 197
Xu Yongchang 327

Yamamoto, S. 53
Yang Bin 401
Yang Wenkuan 317
Yang Xinghua 181
Yao Meng 75
Ye Chaohui 305
Yu Xinke 129
Yue Shuzhen 107

Zhang Baisheng 113
Zhang Dajiang 359
Zhang Jizhong 443
Zhang Lijie 175
Zhang Qiming 101
Zhang Quanxing 101
Zhang Shufang 107
Zhang Youcheng 75
Zheng Bao Ming 225
Zheng Guodong 181
Zhou Zhongyi 67
Zhou Zhuhong 359
Zhu, H. 351

Printed in England by BPCC Wheatons Ltd, Exeter